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Conservation Element

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THE GENERAL PLAN

CITY of SAN JOSE, CALIFORNIA

MAY 1973

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This is to certify that this element entitled, "Conservation Element", was adopted as an addition to the General Plan of the City of San Jose, entitled "San Jose General Plan: 1966-2010", dated January 1966, as amended, by the City Council of the City of San Jose, by Resolution No. 44203 on the 25th day of June 1973.

Richard C. O'Leary, Deputy
City Clerk of the City of San Jose



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CONSERVATION ELEMENT,

MAY, 1973,

the GENERAL PLAN,

CITY OF SAN JOSE,
CALIFORNIA

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INTRODUCTION

INTRODUCTION

Conservation planning is based on the proposition that natural resources are not inexhaustible commodities to be exploited with impunity, but are valuable assets to be judiciously used and wisely managed for the benefit of present and future generations.

Urban growth in San Jose places continued stress on the area's natural resources including those of land, water, vegetation, animal life, and air. A recognition of the need to conserve natural resources is not, of course, new. The initiation of water conservation measures over forty years ago, and the more recent activities of the City in providing adequate sewage treatment are evidences of a long standing conservation consciousness.

Recent studies on the possibility of water recycling in the San Jose area have underscored the need to view at least one resource as single and finite. This holistic approach to resource management should now be extended to include other areas of concern. That water resource conservation, for example, touches on a whole range of conservation issues including watershed management, solid waste disposal, flood control, land use policy, and Baylands management bespeaks the need for a total environmental perspective.

In viewing the natural resource problems facing the entire State, the Legislature has mandated that city and county general plans include a conservation element. State law defines this element as a plan

. . . for the conservation, development, and utilization of natural resources including water and its hydraulic force, forests, soils, rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources. That portion of the conservation element including waters shall be developed in coordination with any countywide water agency and with all district and city agencies which have developed, served, controlled, or conserved water for any purpose for the county or city for which the plan is prepared. The conservation element may also cover:

- (1) The reclamation of land and waters.
- (2) Flood control.

INTRODUCTION

- (3) Prevention and control of the pollution of streams and other waters.
- (4) Regulation of the use of land in stream channels and other areas required for the accomplishment of the conservation plan.
- (5) Prevention, control, and correction of the erosion of soils, beaches, and shores.
- (6) Protection of watersheds.
- (7) The location, quantity and quality of rock, sand and gravel resources.

The Conservation Element, as part of San Jose's General Plan, is the first attempt at viewing natural resources in this specialized but inclusive manner. It is accomplished through:

- The determination of local conservation issues;
- The development of background material for each of the issues;
- The formulation of goals and policies in terms of each issue; and
- The suggestion of implementation programs for effectuating the goals and policies.

The Conservation Element is not a land use plan, although it will serve as a basis for determining City land use policy.

The geographical area of the Conservation Element includes San Jose's sphere of influence. The Element recognizes, however, that environmental problems do not respect political boundaries no matter how extensive. Thus, it is framed in a sub-regional context, and it takes cognizance of conservation policies formulated by the County of Santa Clara, the Santa Clara County Flood Control and Water District, and other regional and sub-regional agencies.



Wooded Hillside

BACKGROUND

BACKGROUND

For analytical purposes, natural resources can be broadly categorized as follows:

- Land resources,
- Water resources,
- Biological resources, and
- Air resources.

This categorization serves as the initial basis for determining a set of relevant conservation issues around which research and policy formulation can occur. Other factors in determining such issues in San Jose include: (1) past and present public action on specific conservation problems, (2) areas of conservation concern which emerge from a review of existing City, County and regional planning policies, (3) the need to cluster closely related conservation problems under broader subject headings, and (4) statewide conservation element guidelines.

The following conservation issues for San Jose are based on these considerations:

- Woodland, range, and watershed conservation;
- Soil and mineral resource conservation;
- Solid waste disposal;
- Flood control and flood plain management;
- Baylands management;
- Water resource conservation;
- Marine and wildlife area preservation;
and
- Air quality control.

These issues serve as subject headings for the background material presented in the following pages, and for the goals and policies presented in the next section.

A. Woodland, Range, and Watershed Conservation

The needs to conserve natural vegetation and watersheds are closely related, particularly in the hills surrounding San Jose.

Watershed lands (See Map Two) are essential in replenishing the City's surface and underground water supplies. Vegetative cover adds to the effectiveness of watersheds by capturing rainwater and allowing it to seep slowly into the ground. Unregulated removal of vegetation not only diminishes watershed capacity but can lead to gradual or even rapid erosion of the steep slopes and soils. The resultant erosion can, in turn, cause damaging mud slides, and the siltation of streams and reservoirs. The City should strictly enforce land grading regulations in the hills, and should consider joining other agencies, such as the Santa Clara County Flood Control and Water District and private water companies, in establishing watershed management programs.

Vegetation (See Map One) in the Diablo Range east of San Jose is especially fragile due to the shallow soils, low rainfall, and seasonally dry grass lands. In years of low rainfall, it can take as much as fifty acres to support the grazing needs of one cow to say nothing of the dependence of other animals on the vegetation. Overgrazing can compound the problems of erosion mentioned above. Such problems could well be minimized under an effective range management program. Likewise, urban development can be detrimental if not controlled to preserve the natural forest, grasslands, and watershed areas.

A regional climate which sees the winters mild and the summers hot and dry combine with the conditions already discussed to create a serious fire hazard. The City should continue to expand its controlled burning program and pursue other means of fire prevention in order to lessen the potential of devastating wildfires in the hills.

A closely related problem is the unregulated use of off-road vehicles, such as motorcycles, which carve up the hillsides and increase both the potential for fires and erosion problems. Special lands should be set aside and strict regulations governing the use of such vehicles should be adopted.

B. Soil and Mineral Resource Conservation

Favorable soils and climate have combined to make Santa Clara County historically an important producer of agricultural products. While agriculture is now less important, it can still contribute to the area's economic diversification. Agriculture also enhances air quality through the plant respiration cycle, and through preventing the intrusion of additional sources of air pollution.

Prime soil lands (See Map One)(1) are being converted to urban uses for which developability, and not soil quality, is the prime requisite. Once these lands have been urbanized, they are almost never reconverted to agricultural use.

The adoption of Urban Development Policies are the first attempt at correcting this problem. Further encroachment upon prime soil lands is not needed to accommodate anticipated urban growth since ample land much of it already supplied with urban services now exists on the periphery of the City and within the urbanized areas.

San Jose could encourage preservation of prime soil lands by adoption of appropriate zoning and by selective purchased with less-than-fee saleback arrangements or long-term lease-back to producers who would farm these lands. In this way, such land would be assembled into more viable economic units for crop production. Fragmentation of land ownership patterns greatly reduces the opportunities to continue agricultural uses profitably. If this process continues, the possibilities for preserving agricultural open space will be greatly diminished. The California Land Conservation Act (Williamson Act) represents another means of encouraging the maintenance of prime soil land in open space use by reducing the tax burden of agriculture.

Mineral resources of the valley (See Map One), although not economically significant, have contributed to the burgeoning construction industry by

(1) Prime soils, as used in this Element, mean Class I and Class II soils as defined by the U. S. Soil Conservation Service.

BACKGROUND

providing cement, sand, and gravel, crushed rock, clay, and limestone, all of which are used as building materials. Areas suitable for the extraction of these resources are found only in limited locations within the City and County and should be protected from encroachment of incompatible land uses.

Certain areas suitable for extractive purposes, such as the salt-evaporation ponds around San Francisco Bay, also provide important open space resources. However, extractive activities, if not adequately regulated, can have long lasting adverse effects on the landscape, destroying scenic qualities and possibly affecting water resources. If they are properly planned and managed, they can be put to other open space uses at the conclusion of extractive activities.

San Jose must make every effort to preserve and make judicious use of vacant lands containing prime soil characteristics and economically usable mineral resources. The relationship between local short-term uses and the maintenance and enhancement of long-term productivity for the benefit of all citizens must be weighed if these lands are to be preserved. It must be remembered that urbanization is virtually an irreversible use of the land.

C. Solid Waste Disposal

Solid waste disposal is a general problem but, because it is not nearly as pervasive as air or water pollution, usually suffers from austerity budgeting and low public priority. Historically, solid waste disposal has been considered with land use planning only after prior lack of consideration has caused water pollution or public health hazards.

Production rates for residential solid wastes alone amounted to more than 5 pounds per capita per day nationally in 1970. Residential solid waste production in the San Francisco Bay Region was estimated in 1967 to be 5.7 pounds per capita per day with a projection through the year 2000 to be approaching 10 pounds per capita per day.

BACKGROUND

Many methods of solid waste disposal are used in the United States. The following is a list of the principal techniques with a brief description of their applicability to San Jose's waste disposal needs.

- Landfilling is the most commonly used method. Landfills vary from strictly managed sanitary landfills to unsightly open dumps. Sanitary landfills are located and designed to minimize chances for surface and ground water pollution, and the wastes are covered and compacted daily. A modified sanitary landfill differs from a sanitary landfill in that the wastes are not covered with earth as frequently and some burning or salvaging may be allowed. Burning is prohibited at landfills in the Bay Region.

Landfilling is the only method of solid waste disposal presently used in the San Jose area, and there are six sites available within the City (See Map One). These sites all use a modified sanitary landfill. Newby Island, which is located on the baylands between Alviso and Milpitas, is the largest of these existing sites containing 342 acres.

- Incineration is the combustion of solid wastes at high temperatures. However, ash and noncombustible material present an additional disposal problem. Due to strict air pollution control standards, most burning is prohibited in the Bay Region, thus this method is not considered feasible in San Jose for the foreseeable future.
- Composting is the aerobic decomposition of organic material to a humus-like end product which can be used as a soil amendment. Little solid waste composting is done in San Jose because of high costs and a limited market for the final product. Also, this method can only handle organic wastes.

BACKGROUND

- Grinding of garbage in home disposal units with discharge to municipal sewers and treatment plants is widely practiced in the Bay Region. As this method puts a heavier load of suspended solids and organic material on municipal sewage treatment plants, water pollution problems may place limiting restrictions on the feasibility of large scale grinding operations.
- Salvaging of metals, cardboard paper, and other materials which have a local market is practiced to a limited extent in San Jose. This technique is gaining wider acceptance and several recycling centers have been established throughout the city to separate reclaimable materials and act as transfer points to larger disposal centers.

In the near future, full sanitary landfill operations will be used to a greater extent. However, most new landfill sites will be large and will be located in rural inland areas owing to the lack of suitable land near population centers. This relocation of landfill sites will result from tightening governmental restrictions on solid waste disposal and the exhaustion of older and unsatisfactorily operated waste disposal sites.

San Jose should consider inland, as well as Bayland, sites for future landfill purposes, and preplanning of such sites for eventual use as recreational or other appropriate open space uses should be an important consideration. Several examples of solid waste sites rehabilitated for recreation and open space use exist in Santa Clara County. Other sites have such possibilities.

It appears that sanitary landfilling is, at best, an interim solution to the solid waste problem. Incineration may become more common if the resulting air pollution problems are solved. Other technological advances in solid waste disposal may include more efficient sorting equipment, pneumatic conveyance pipelines, and combustion for power generation facilities.

In any event, solid waste management will continue to be expensive. Source control of wastes will become a necessity in keeping this expense down.



Map I

Land Resources



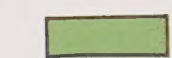
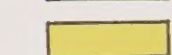
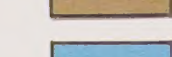
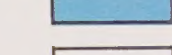
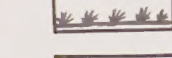
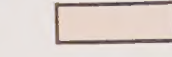
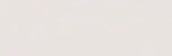
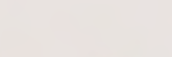
THE
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SAN JOSE, CALIFORNIA
AS AMENDED - MAY, 1973

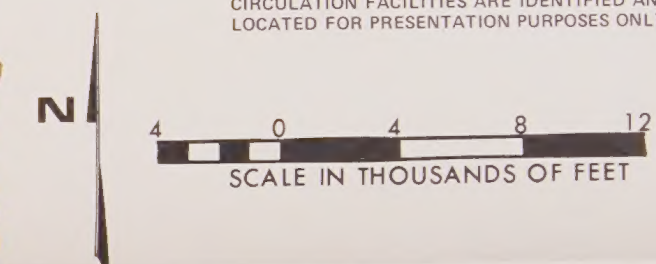
MAP I

LAND RESOURCES

LEGEND

-  CLASS I SOIL
-  CLASS II SOIL
-  RANGELAND
-  WOODLAND
-  RESERVOIRS
-  HILLSIDE - 15% SLOPE LINE
-  SPHERE OF INFLUENCE LINE*
-  DEVELOPED AREA*
-  SOLID WASTE DISPOSAL & MINERAL RESOURCE SITES
-  SOLID WASTE
-  QUICKSILVER
-  QUARRY

*THIS ITEM ALONG WITH STREETS AND OTHER
CIRCULATION FACILITIES ARE IDENTIFIED AND
LOCATED FOR PRESENTATION PURPOSES ONLY.



BACKGROUND

Separating reclaimable materials and delivering them to municipal recycling centers will help somewhat to reduce per capita generation of solid wastes. San Jose should continue to promote the establishment of recycling centers and explore other methods of solid waste reuse.

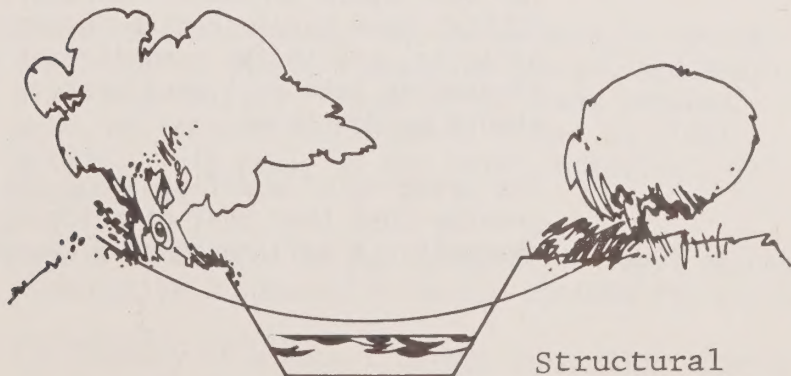
D. Flood Control and Flood Plain Management

Portions of San Jose are subject to freshwater and saltwater flooding; fresh water flooding being caused by heavy upstream runoff; and saltwater flooding, by the tidal action of San Francisco Bay. (Map Two shows those portions of the City subject to flooding on an average of every 100 years. They are shown for informational purposes only).

The freshwater flooding hazard is especially unique in that the valley's stream beds are generally at a higher elevation than that of the surrounding areas.



In addition, the paving of natural areas, either in the hills or the valley, which formerly absorbed rainfall, increases substantially the volume of runoff and compounds the flooding problem. Flood protection thus becomes essential in San Jose whether it be structural channels, or levees to enclose semi-natural flood plains.



BACKGROUND



The choice is reduced structural channels, however, when urban development encroaches upon the natural flood plains and backs up to the stream beds.

The Santa Clara County Flood Control and Water District (SCCFCWD) has recently adopted a policy that where physically, financially, and environmentally feasible, the flood plain levee (or modified flood plain) concept will be utilized for flood control purposes. To express this policy, SCCFCWD is currently preparing designated floodway maps. The "designated floodways" will include a stream and that portion of the adjoining flood plain required to provide reasonable land area for passage of a "design flood" (100 year flood) including land necessary for construction of levees. To effectuate these maps, it is recommended that the County and the various cities in the county adopt flood plain zoning. The City of San Jose should do this as soon as practicable. In addition, where new development threatens immediate encroachment on designated floodways, and SCCFCWD contemplates eventual purchase, the City might, as an interim measure, wish to purchase such land for eventual conveyance to and reimbursement by SCCFCWD.

The development of modified flood plains is generally less expensive than construction of concrete channels. It has the further advantage of preserving areas of natural beauty and providing land for open space purposes. Already, the City and SCCFCWD have cooperated in developing flood plain policies, and in the purchase and development of streamside land as linear parks. This cooperation should be continued.

The bridging of modified flood plains involves a greater cost than that of bridging structural channels. A well designed elevated roadway would

BACKGROUND

be the most expensive possibility. A modified design could reduce such cost while still allowing passage of potential flood waters and access along streamsides.

At the present time, there are 70 miles of proposed modified flood plain channels in six proposed flood control projects in San Jose.

In the Baylands, existing inboard and outboard levees, developed to contain salt evaporation ponds, provide defacto salt water flood protection (See Map Two), but are structurally unsound and are rendered increasingly inadequate by unstable soil conditions, land subsidence, and the possibility of seismic activity. The outboard or outermost levees presently enclose 16,000 acres of saltponds and marshlands and the inboard levees, 7,600 acres of marsh and drylands.

To provide more adequate protection from tidal flooding in the Baylands, three basic alternatives have been proposed: (1)

1. Fill the areas inward from the inboard dikes to a non-floodable elevation: This would be the safest, but most expensive, alternative.
2. Reinforce the outboard levees: This would involve some 60 miles of levees.

Alternatives 1 and 2 raise the possibility of urban development in "protected" areas. Unstable soil conditions and the threat of seismic activity still remain, however, and open space would continue to be the most appropriate and safest activity-especially since there is no shortage of developable land in other parts of the City and County.

3. Reinforce the inboard levees: This would involve 34 miles of levees.

These levees would be less vulnerable to severe tidal action than the outboard levees, and would allow the possible reopening of areas between existing inboard and outboard levees to tidal action. This would be the least expensive alternative.

From a standpoint of public safety as well as cost, Alternative 3 appears to be the optimum choice (2)

2E12

(1) Summary of a Report to the Santa Clara County Flood Control and Water District on the Baylands, Salt Water Flood Control and Planning Study, January, 1973.

(2) Ibid

E. Baylands Management

The Baylands are a critical link in the chain of life which determines the quality of the human and natural environment in the area. The marshes, salt ponds, and mudflats of the Bay provide food, nesting grounds, and shelter for Bay life (See Map Two). In addition, the water surfaces make an important contribution to the mild climate of the area.

As the City and County continue to grow, there is constant pressure for new sources of developable land and the Baylands could be used to meet this demand. It is a possibility which should be rejected, however, as the Baylands are too environmentally valuable and hazardous. Some of the existing problems of Bayland development are already obvious including air and water pollution, and the destruction of wildlife. Underneath the Baylands, layers of stream sedimentation provide an unstable foundation for development. Flanking the Baylands, the San Andreas and Hayward faults make the unstable lands even more dangerous because of the ever-present possibility of earthquake tremors.

The water areas are particularly sensitive to human intervention. Filling such areas reduces both the volume and surface area of water. Reduction of the surface area raises air temperatures and reduces winds. Water circulation in the South Bay would be further reduced thus decreasing the capacity to flush pollutants out of the Bay. Fill piled on unstable submerged land is particularly susceptible to differential settlement and other displacements during earthquakes. The City should cooperate with the County to preserve these water areas for recreation, wildlife refuges, and other open space uses. Dredging must also be kept to a minimum as this process is destructive to the Bay environment. (1)

As more than half of the Baylands water surface area in Santa Clara County lies within privately-owned salt evaporation ponds, public access to the Bay is extremely limited. Every effort should be made to zone and/or facilitate the purchase of salt ponds no longer needed for extraction purposes, breach some of the existing levees, and reopen such areas to tidal action. In this manner, not only would more of the Baylands be open to public exposure, but former marshland areas could be restored to their natural state. The area in New Chicago subdivision of Alviso generally east and north of the new railroad spur is such

(1) A Policy Plan for the Baylands of Santa Clara County
County of Santa Clara Planning Department, 1972, pp. 49-50.



Map II
Water &
Wildlife Resources

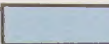
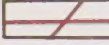
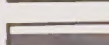


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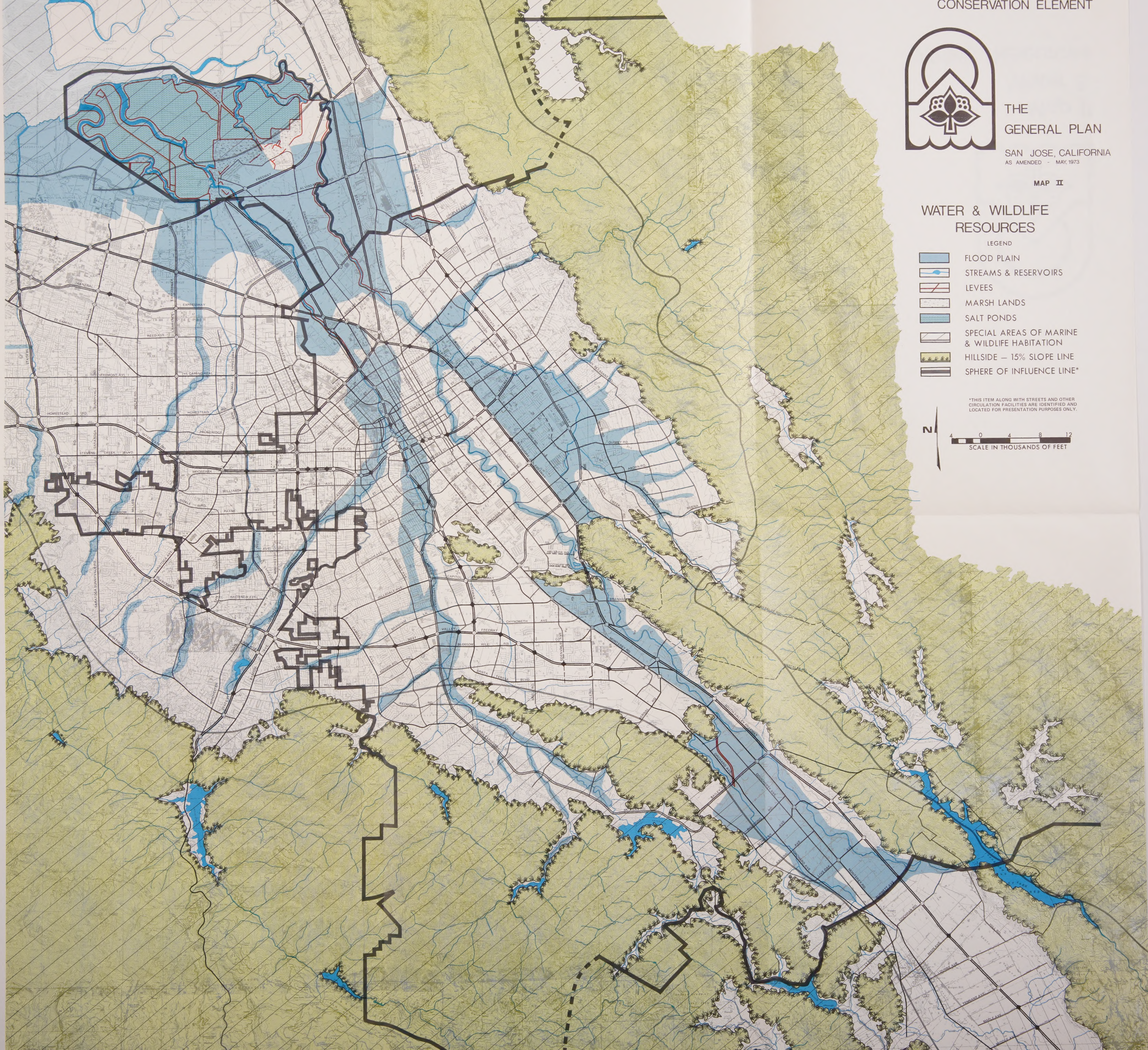
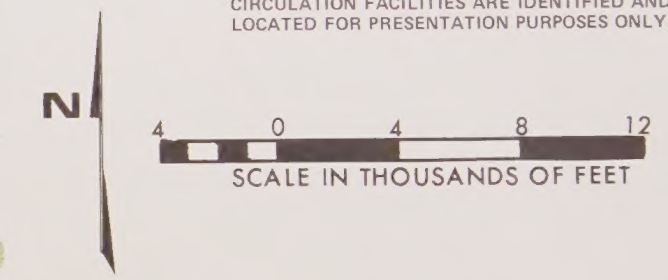
MAP II

WATER & WILDLIFE RESOURCES

LEGEND

-  FLOOD PLAIN
-  STREAMS & RESERVOIRS
-  LEVEES
-  MARSH LANDS
-  SALT PONDS
-  SPECIAL AREAS OF MARINE
& WILDLIFE HABITATION
-  HILLSIDE - 15% SLOPE LINE
-  SPHERE OF INFLUENCE LINE*

*THIS ITEM ALONG WITH STREETS AND OTHER
CIRCULATION FACILITIES ARE IDENTIFIED AND
LOCATED FOR PRESENTATION PURPOSES ONLY.



BACKGROUND

a recoverable marshland area that could be readily opened to public access.

The dryland areas, generally situated inland of the present inboard levee system, are especially suited for open space uses. In addition, dry areas may also be used for limited urbanization if geological factors are taken into account. The City should establish special procedures, using the most advanced techniques available in evaluating geologic conditions, for the review and approval of projects in these areas.

Recognition of the necessity for preservation and enhancement of the Baylands as a significant and irreplaceable natural resource is the first step in realizing the Bayland's resource potential. Once destroyed, the wetlands, marshlands, salt ponds, and the open Bay cannot be recovered or replaced. To lose it now would be to ignore present needs and those of generations to come.

F. Water Resource Conservation

As indicated earlier, water in its total use cycle must be treated as a single and finite resource. The water supply for San Jose and the Santa Clara Valley has traditionally been obtained from underground water basins. The overdraft of these water basins, due to heavy agricultural and urban demands, has long been evidenced by the depletion of underground water reserves, land surface subsidence, and localized deterioration of ground water quality. To stabilize and reverse this trend, the Santa Clara County Flood Control and Water District (SCCFCWD) maintains a system of reservoirs, canals, recharge areas, and water mains for the purpose of redistributing surface water and replenishing underground reserves.

The district's "In-County Water Distribution System" (See Map Three) provides supplemental water imported through the South Bay Aquaduct and includes a cross-valley pipeline, a pumping station and water treatment plant near Los Gatos, a second treatment plant near Penitencia Creek east of San Jose, and tie-ins to the District's other distribution facilities. At the present time, 60% of the area's water supply originates locally and 40% is imported.

BACKGROUND

The City of San Jose is served by four retail water suppliers (See Chart below and Map Three) whose sources include surface streams, wells, and wholesale purchases from SCCFCWD. San Jose Water Works is the largest of these operations supplying water to a major portion of the City and neighboring areas. The agency maintains its own system of wells, reservoirs, and water mains; but also purchases 30% of its supply from SCCFCWD.

SAN JOSE RETAIL WATER SUPPLIERS

Agency	Territory	Water Mains In Miles
San Jose Water Works	Most of San Jose, Portions of neighboring cities, and County	1,800
San Jose Municipal Water System	Portions of Evergreen Alviso Districts	60
Great Oaks Water Co.	Portion of Edenvale District	87
San Jose Highlands Water Company	Portion of Berryessa District	4

The increased demand for water in the San Jose area necessitates the development of additional sources of water. Two possibilities include (1) increased water importation and (2) waste water recycling. The proposed San Felipe Division of the Central Valley Water Project, currently under study by SCCFCWD, would bring additional imported water to the valley through a south county Federal aquaduct. It is expected that this new source of water would adequately meet long term demands. (1)

The recycling of waste water as a new source of fresh water is closely related to problems of sewage treatment and water quality. San Jose's sewage treatment plant, owned jointly with the City of Santa Clara, serves sewer districts in the host cities, several surrounding cities, and portions of the County. The plant has undergone continuous expansion in recent years and currently provides secondary treatment

(1) Water Quality Management Plan for South San Francisco Bay, prepared for South Bay Dischargers by Consoer-Bechtel, pp. 8-16.

BACKGROUND

(involving 91% removal of pollutants). Treated effluent is, however, pumped directly into South San Francisco Bay where water pollution problems are compounded by inadequate tidal flushing. The recently completed Water Quality Management Plan for South San Francisco Bay (1) proposed that the San Jose and Palo Alto treatment plants be equipped to provide a higher grade of secondary treatment and become the key facilities in a sub-regional sewage disposal system. Treated effluents from both plants would feed into a common outfall line for conveyance to and release in San Francisco Bay north of Dumbarton Bridge. At this point tidal action would carry residual pollutants out to sea.

The tertiary (or total) treatment and recycling of waste water would eliminate the need for such exportation but would be costly. A follow up study, commissioned by SCCFCWD has tentatively concluded that waste water recycling would be 10-25% more expensive than increased fresh water importation; furthermore that the proposed San Felipe Project would negate the need for waste water recycling.(2) From the standpoint of Bayland water quality, however, tertiary treatment of waste water may be imperative regardless of the diseconomies involved.

Closely related issues include the elimination of waste water toxicants and the seepage of untreated waste water to underground water basins. Toxic wastes usually come from agricultural and industrial activities and can be controlled by better identification and monitoring at the source and by specialized treatment processes. Unfortunately, toxic agents are not easily identified and continuing research is being devoted to the subject. The seepage of untreated waste water pollutants to otherwise pure underground water reserves can be eliminated by connection to adequate sewer systems.

The above conditions underscore the need for continued cooperation among the various public and private agencies involved in the delivery and disposal of water in the San Jose area. These include, among others, the City of San Jose, San Jose Water Works, and the Santa Clara County Flood Control and Water District. The possibility of consolidating retail water supply agencies in San Jose should be considered.

(1) Ibid.

(2) Abstract of a Draft Report on a Study of Wastewater Reclamation and Reuse prepared by Consoer-Bechtel for the Santa Clara County Flood Control and Water District, September, 1972.



Map III

Water Distribution



THE
GENERAL PLAN

SAN JOSE, CALIFORNIA
AS AMENDED - MAY 1973

MAP III

WATER DISTRIBUTION

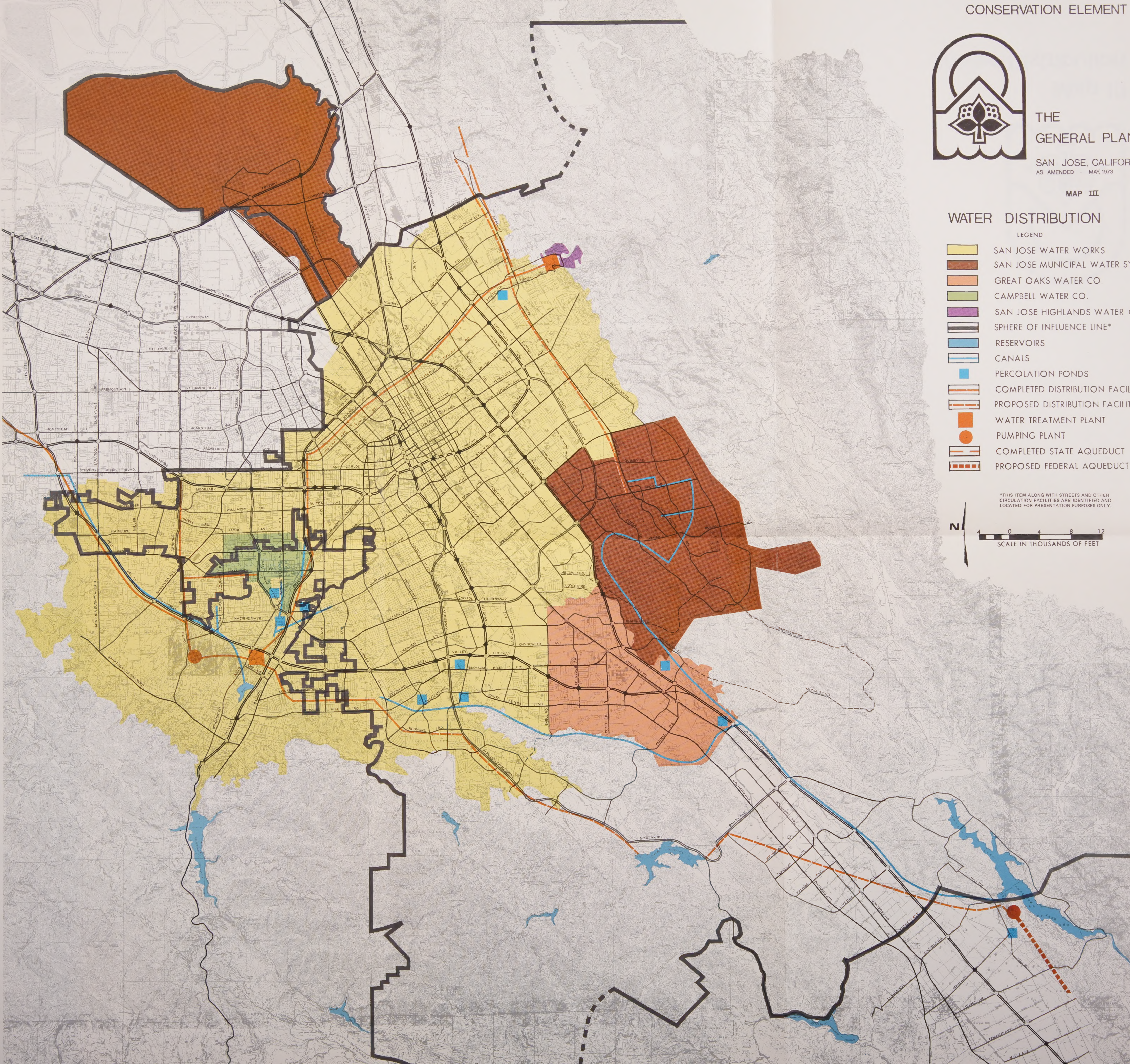
LEGEND

- SAN JOSE WATER WORKS
- SAN JOSE MUNICIPAL WATER SYSTEM
- GREAT OAKS WATER CO.
- CAMPBELL WATER CO.
- SAN JOSE HIGHLANDS WATER CO.
- SPHERE OF INFLUENCE LINE*
- RESERVOIRS
- CANALS
- PERCOLATION PONDS
- COMPLETED DISTRIBUTION FACILITIES
- PROPOSED DISTRIBUTION FACILITIES
- WATER TREATMENT PLANT
- PUMPING PLANT
- COMPLETED STATE AQUEDUCT
- PROPOSED FEDERAL AQUEDUCT

*THIS ITEM ALONG WITH STREETS AND OTHER
CIRCULATION FACILITIES ARE IDENTIFIED AND
LOCATED FOR PRESENTATION PURPOSES ONLY.

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4 0 4 8 12
SCALE IN THOUSANDS OF FEET



G. Marine and Wildlife Area Preservation

Human benefit from the marine and wildlife of the Santa Clara Valley includes food, economic gain, recreation, research, and a healthful environment for living. It is important to remember that the marine and wildlife habitants of the area are as much a part of the natural environment as man, and constitute a resource for which no dollar value can be assigned.

Many thousands of people fish, hunt, or simply observe the fish and wildlife of the South Bay-Santa Clara Valley area. Those areas where such wildlife can be experienced are generally associated with three major geographic features: the baylands, the valley floor, and the surrounding mountains. (See Map Two; and Appendix Maps One, Two, and Three).

The Bay and the baylands, including the marshlands, wetlands, salt ponds, and sloughs have great resource value as they provide habitat for several rare and endangered wildlife species as well as a vast number of other species which give these areas national significance. The Baylands region is located along the Pacific Flyway, one of the major migration routes for waterfowl and migratory birds in North America. Consequently, loss of areas which provide food, nesting, and resting places for wildlife can have impacts on wildlife populations far beyond the borders of Santa Clara County.

This baylands marine environment is broken down into four major wildlife habitats briefly described as follows:

- Marsh Areas are used for nesting, feeding, and protective cover for many bird species.
- Salt Production Lands, though not as valuable a habitat as the marsh lands, are used extensively as resting and feeding areas by all species of birds. Shorebirds depend upon them for resting areas during high tide.

BACKGROUND

- Exposed mud flats and tidelands: At flood tide these shallows are covered by a foot or two of water, and at ebb tide they are exposed to the warm sun. A whole world of mullusks, crustaceans, and other plant and animal organisms live in this in-and-out-of-water environment, including mussels, clams, snails, worms, and insects that shorebirds depend upon for survival.
- Open Water areas are used by ducks, cormorants, geese, and loons for resting, and sometimes for feeding.

In addition to the baylands environment, eleven streams flow across the Santa Clara Valley through San Jose's sphere of influence. Each of these streams and their surrounding riparian vegetation comprise an important ecosystem supporting a greater variety of wildlife than any other habitat type in the valley.

The wildlife community begins with micro-organisms which contribute to the breakdown of organic substances. Algae, and leafy aquatic plants produce and represent the major food source for many insects, snails, fish, amphibians, and reptiles. Many bird species concentrate in streamside areas for nesting, feeding, and roosting. Various fur-bearing animals, where urban pressures allow, are common in and near the stream areas.

Finally, much of the mountainous area surrounding the valley provide sanctuary for many species of animals. These species include, big game, fur-bearing animals, and rodents, birds, reptiles, amphibians, and fish. Because this area is largely inaccessible, most of the natural landscape remains untouched. Those uses that have encroached are mainly grazing or range oriented, still leaving the landscape in a natural state so that wildlife habitats are only minimally disrupted.

Each species of wildlife is adapted to and dependent for its survival upon a particular set or range of habitat conditions. Although some species can survive in urban or suburban areas, others can survive only if their habitat is preserved in its natural state, largely undisturbed by man. Even those which can survive in

BACKGROUND

urban areas may be able to do so only so long as there remains natural areas, such as wooded streamsites, where they can find refuge and meet their other survival needs.

San Jose must make every effort to preserve those existing areas of marine and wildlife habitat in open space use so that a maximum public exposure to this environment can be provided without upsetting the delicate balance of these habitat ecosystems.

Through restoration of habitat areas which have been damaged or destroyed and reduction of pollution, an increase in marine and wildlife populations could be realized. In any event, to insure for present and future generations of City residents the benefits of marine and wildlife, maintenance of habitat requirements is essential.

H. Air Quality Control

Air pollution caused by automobile and industrial emissions is not only harmful to human health but causes damage to property and plant and animal life as well.

The people of San Jose are exposed more often and to higher levels of air pollution than any other area within the Bay Region save the Livermore Valley. Federal and State air quality standards are frequently exceeded in San Jose. This is the result of topographic features, prevailing wind patterns, and climatic conditions which often makes San Jose a repository for air pollution generated throughout the Bay Area. On the other hand, the water surface of South San Francisco Bay and the openness and natural vegetation of the hills surrounding San Jose play an important part in tempering the area's air pollution.

The City should continue to coordinate its activities with the Regional Air Pollution Control Board and the Bay Conservation and Development Commission in determining the impact of specific land uses on air quality in San Jose, in determining appropriate land use regulations, and in taking action against major stationary air polluters outside of San Jose.

It should also work with the Santa Clara County Transit District in promoting increased public transportation throughout the City.



Grassland

CONSERVATION GOALS and POLICIES

GOALS AND POLICIES

The goals and policies of the Conservation Element, once adopted, provide guidelines for City Council decision making and prescribe specific actions the City shall take in order to preserve and manage its natural resources. Some of the prescribed actions are direct in that they can be executed through the City's own police power authority. Others are indirect in that they involve the City petitioning and cooperating with other public and private agencies, and other levels of government.

The goals and policies are presented in this section, and the possible means of implementing them will be discussed in the next section.

A. Woodland, Range and Watershed Conservation

Goal: Preserve natural vegetative cover particularly in the hillside areas of San Jose; and employ sound conservation practices in the economic use of these resources.

- Utilize vegetative cover for the maintenance of ground stability, watershed capacity, and visual quality throughout the hillsides.
- Limit and carefully regulate urban development in the hillside areas.
- Protect all public and private watershed lands from non-compatible development.

Policies:

1. The City shall adopt and strictly enforce grading regulations which govern the removal of vegetative cover in hillside areas.
2. The City, in cooperation with the County and other appropriate agencies, shall encourage appropriate planting and replanting projects in hillside areas.
3. The City shall encourage adoption by the State Legislature of a new "forest practices act" which would preserve woodlands for the protection of watersheds.
4. The City shall adopt regulations for the protection of range lands.

GOALS AND
POLICIES

5. The City shall allow development in the hillside areas only in such manner as to preserve natural vegetative cover and to protect watershed areas.
6. The City shall strictly enforce regulations governing the use of off-road "motorcycles" or "motor-driven cycles", and shall consider adopting appropriate regulations limiting such use to designated areas.
7. The City, in cooperation with the County Flood Control and Water District, shall restrict or carefully manage development in watershed areas critical for the effective functioning of reservoirs and the prevention of unnecessary or excessive siltation.
8. The City, in cooperation with other fire prevention agencies, shall continue to expand its "controlled burning" programs, and shall use other appropriate means to reduce potential fire hazards in the hills.

B. Soil and Mineral Resource Conservation

Goal: Preserve and make judicious use of vacant lands containing prime soil characteristics, and economically usable mineral resources.

Policies:

1. The City shall work to retain lands containing Class I and Class II soils in open space use wherever possible.
2. The City shall encourage the use of "Williamson Act" contracts and other forms of property tax relief on lands containing prime soils, and in other appropriate areas.
3. The City shall discourage new urban development on vacant lands within the Urban Service Area containing Class I and Class II soils.
4. The City shall cooperate with local educational institutions, the County, and various agricultural groups in encouraging continued and selective agricultural activity.

GOALS AND POLICIES

5. The City shall carefully regulate the use of lands containing economically exploitable mineral resources including sand and gravel deposits.
6. The City shall require, as a pre-condition to approving excavation permits for extractive activities, that adequate provision be made for restoration or conversion of the land to other land uses following such activity.
7. The City shall retain Bay salt ponds no longer needed for extraction purposes in open space use.

C. Solid Waste Disposal

Goal: Promote alternative locations and methods for the disposal of solid waste material.

- Encourage the use of inland sites and discourage the indiscriminate use of Bayland sites for the disposal of solid waste.
- Promote adequate sanitary standards in the disposal of solid waste.
- Explore methods for solid waste reuse.

Policies:

1. The City shall utilize, as much as practicable, the full sanitary land fill method of solid waste disposal as opposed to the present modified sanitary land fill method.
2. The City shall give preference to inland sites for the future disposal of solid waste material.
3. The City shall utilize Bayland sites for the future disposal of solid waste material only for the purpose of elevating low-lying dry areas above the level of flooding.
4. The City shall cooperate with appropriate State and regional agencies in monitoring the effects of solid waste disposal on ground water quality, and in taking appropriate action to insure a high degree of ground water quality.
5. Preplanning for recreational and other appropriate uses shall be an essential part of future programs for the acquisition of solid waste disposal sites.
6. The City shall encourage the expansion of solid waste recycling centers.

GOALS AND
POLICIES

7. The City shall explore methods of solid waste recycling which involve the production of marketable recycled by-products and the provision of new energy sources.

D. Flood Control and Flood Plain Management

Goal: Minimize the risk of flooding throughout San Jose; and reserve natural or modified flood plains for open space uses.

- Utilize modified floodplains along streams and streamsid es for recreation, agriculture, and other open space uses.
- Preserve floodable portions of the Baylands for open space uses.

Policies:

1. The City shall encourage use of the Modified Flood Plain concept for the control of fresh water flooding in San Jose. (See Page 2E11)
2. The City shall preserve designated floodway areas for open space use through adoption of appropriate flood plain zoning regulations.
3. Where necessary, the City shall acquire designated floodway areas for eventual reimbursement by or conveyance to the Flood Control and Water District.
4. Bridges built over designated floodway areas shall make adequate provision for the flow of potential flood waters.
5. The City shall continue to cooperate with the County Flood Control and Water District and other appropriate agencies in the development of linear streamside parks.
6. The City shall continue to cooperate with the County Flood Control and Water District regarding the location of new development in or adjacent to designated floodway areas.

GOALS AND
POLICIES

7. The City shall encourage the improvement of inboard dikes as the primary means of tidal flood control in the Baylands.

E. Baylands Management

Goal: Preserve and enhance the Baylands of San Jose as a significant natural resource.

- Encourage open space uses in the Baylands with a minimum of filling or dredging.
- Work to reclaim water areas and marshlands, and to restore water quality in the Bay.

Policies:

1. The City shall cooperate with the County in preserving Bay land and water areas for conservation-oriented recreation, wildlife refuges and other appropriate open space uses.
2. The City shall cooperate with the County in preserving as open space salt ponds no longer needed for extraction purposes, and in examining the possibility of reopening such ponds to tidal action.
3. The City shall cooperate with the County in prohibiting the indiscriminate filling of existing Bay waters, salt ponds, and marsh lands.
4. The City shall cooperate with the County to limit the dredging of submerged Baylands.
5. The City shall establish procedures for the review and approval of projects in the Baylands. Such review shall give due consideration to the special geologic hazards and ecological disruptions of building in the Baylands.
6. The application of "Williamson Act" provisions to Bayland areas shall be encouraged. When appropriate, provision of public access for hiking and bicycling shall be included in such contracts.
7. The City shall cooperate with other governmental jurisdictions having an interest in the conservation of South San Francisco Bay.

GOALS AND
POLICIES

F. Water Resource Conservation

Goal: Recognize water resources as vital to the ecological and economic health of the region; and their use as part of a total water cycle.

- Utilize water resources in a manner which does not deplete the supply of surface and ground water, and in such manner as to maximize the value of related scenic and recreational resources.
- Promote, in cooperation with other jurisdictions, integrated systems for the distribution, use, treatment, and recycling of water resources.

Policies:

1. Ground water recharge areas shall be protected from urban encroachment by zoning regulations and other appropriate devices.
2. The City shall encourage those agencies concerned with water procurement and distribution within its boundaries to give consideration to the recreational and open space uses in water related areas.
3. The City shall continue upgrading, as necessary, its sewage treatment facilities to meet regional water quality standards.
4. The City shall not permit development to occur in areas not served by an approved sanitary sewer system.
5. The City shall continue to cooperate with San Jose Water Works, Santa Clara County Flood Control and Water District, and other local and regional water delivery and disposal agencies in developing unified programs for the use and management of water resources.
6. The City shall continue to study appropriate means of consolidation or coordination of retail water supply agencies within its boundaries.

GOALS AND
POLICIES

7. The City shall continue to work with the Regional Water Quality Control Board and other appropriate agencies in developing methods of measuring the toxic content of sewage, and means for specific treatment of specific sources of toxicity.
8. The City shall cooperate with the County Flood Control and Water District and other appropriate agencies in studying the costs and benefits of (1) total treatment and reuse of waste water, and (2) the importation of additional fresh water through the proposed San Felipe Project.

G. Marine and Wildlife Area Preservation

Goal: Protect areas of special marine wildlife habitation, particularly those containing endangered species, as living research and recreational resources, and as indispensable parts of man's total environment.

Policies:

1. The Modified Flood Plain method of flood control shall be utilized as a means of preserving wildlife along streambeds.
2. Linear streamside parks shall be designed to provide for maximum retention of wildlife habitats.
3. Action shall be considered to set aside additional permanent wildlife refuges in Bayland marshes and wetlands; and to restore, wherever possible, those marshes which have been destroyed.
4. Nature preserves shall be established in streambed and hillside areas to protect habitats of rare and endangered species of plants and animals, and to provide primitive areas for educational and research purposes.
5. Land use in wildlife refuges and nature preserves shall be limited to recreational activities which are conservation-oriented such as hiking, and horseback riding.

GOALS AND
POLICIES

H. Air Quality

Goal: Encourage a high level of air quality in San Jose.

- Recognize the contribution of natural vegetation and maximum Bayland water area in maintaining air quality.
- Promote a balanced urban transportation system in San Jose involving minimal air pollution.

Policies:

1. The City shall continue to work with the Regional Air Pollution Control District and the Bay Conservation and Development Commission in determining the impact of new development on the air quality of San Jose, and in determining appropriate land use regulations to protect air quality.
2. The City shall urge the Regional Air Pollution Control District, and other appropriate State and Federal agencies to take strong action against those sources of air pollution which originate outside of San Jose, but affect the city's air quality.
3. The City, in cooperation with the Santa Clara County Transit District, shall promote the extension and improvement of mass transportation facilities where air quality improvement can be projected.



Valley Floor From
Santa Teresa Hills

IMPLEMENTATION

IMPLEMENTATION

This section discusses the possible means for effectuating the goals and policies of the Conservation Element. It is intended only as a guide for legislative and administrative action.

A. Zoning and Land Use Regulation

Even though the Conservation Element is not a land use plan, many of the goals and policies are land use oriented and can be effectuated through appropriate amendments to the City's existing and/or proposed zoning ordinances. These land use oriented policies have their counterparts in the Open Space Element and the ensuing Open Space Zoning Regulations which will be adopted by the City Council. These regulations should incorporate the corresponding policies of the Conservation Element once it is adopted.

Listed below are possible zones which might be a part of such regulations, and the uses each zone might include. This is a suggested list and is not necessarily a dictation of content:

- Hill Zone: Agriculture (including range uses), outdoor recreation, watersheds, nature preserves, and other open space uses; mines, quarries, solid waste disposal sites and selected low density development.
- Prime Soils Zone: Agriculture, outdoor recreation and other appropriate open space uses; low density urban development which retains the land in substantially open space use.
- Flood Plain Zone: Agriculture, outdoor recreation, water recharge areas, flood control facilities, nature preserves and other appropriate open space uses.
- Baylands Zone: Outdoor recreation, salt extraction ponds, wildlife refuges, and other appropriate open space uses.

B. Environmental Impact Reports (EIR)

The California Environmental Quality Act of 1970, as amended, requires that Environmental Impact Reports (EIR's) include a finding that any project having a "significant impact on the environment" is in accord

IMPLEMENTATION

with the adopted Conservation Element of the General Plan.

While the conclusions of EIR's are not legally binding, they can be a significant force in promoting the goals and policies of the Conservation Element.

Through a rigorous inventory of the environment surrounding a proposed project; an analysis of positive and negative effects on the ecosystem; and a consideration of land use, development, and timing alternatives, an EIR can bring many important conservation issues to the surface for discussion and decision making purposes.

It is expected that the goals of the Conservation Element would serve as one of the bases for the findings of the EIR's, while a conscientious adherence to EIR conclusions would, in turn, reinforce the policies of the Element.

C. Intergovernmental Cooperation

Since conservation problems do not respect political boundaries, several of the policies of the Conservation Element call for continued and stepped-up cooperation with local, county, and regional agencies having a general or specialized interest in the conservation of natural resources. This would include the County of Santa Clara, San Jose Water Works, Santa Clara County Flood Control and Water District, Bay Area Regional Water Quality Control Board, Bay Area Air Pollution Control Board and Bay Conservation and Development Commission.

While such cooperation usually takes place at an administrative level, action taken by the City Council --usually in the form of a resolution--could initiate, redirect, or give impetus to such efforts.

D. Code Enforcement

Some of the conservation policies are adequately covered by existing City statutes. In this case, such policies can be effectuated by increased enforcement activity. Again, the Council may find it desirable to reaffirm its intent on such matters, and may wish to consider appropriate priority alignments to make enforcement more effective.



Alviso Slough

APPENDIX

CONSERVATION ELEMENT

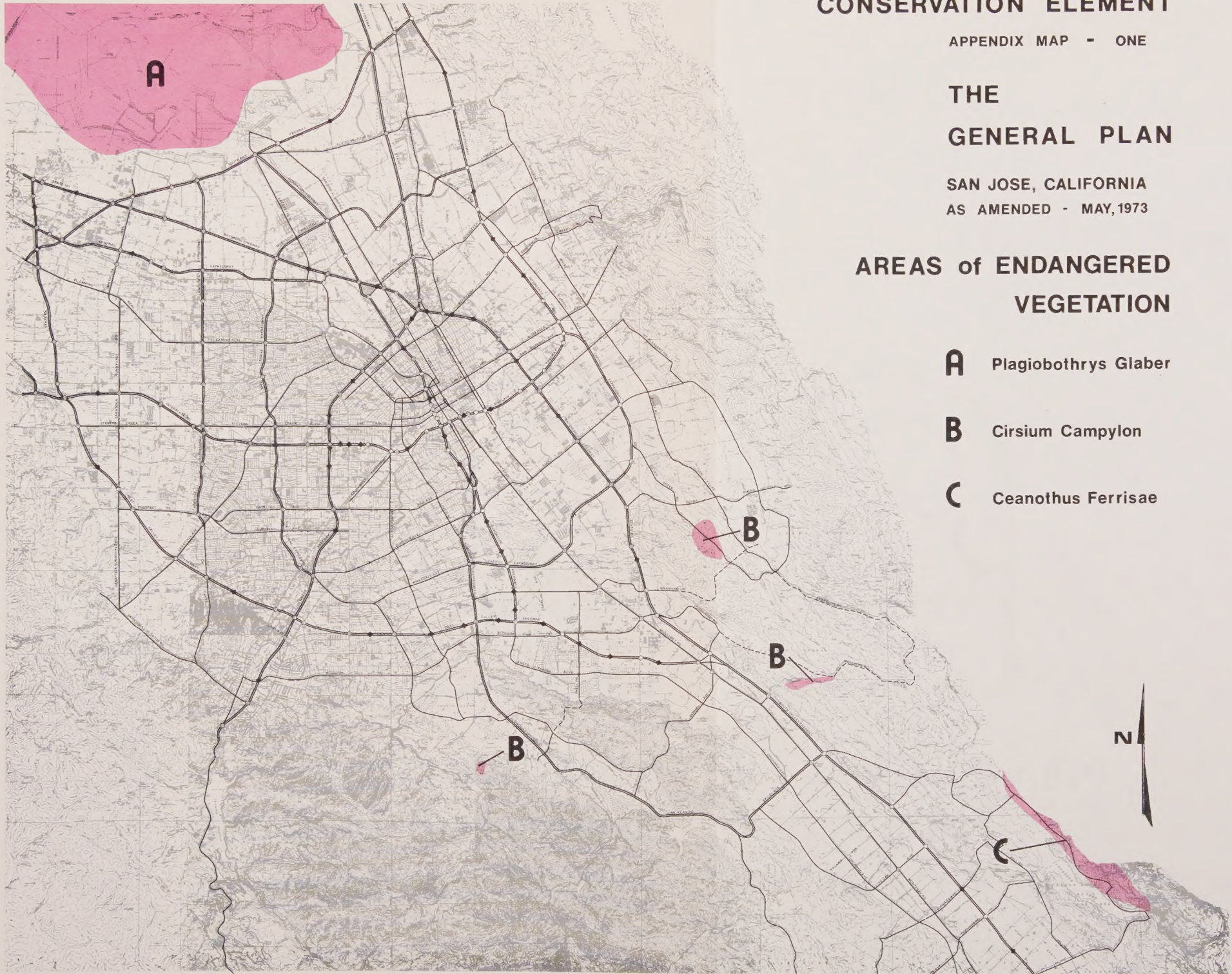
APPENDIX MAP - ONE

THE GENERAL PLAN

SAN JOSE, CALIFORNIA
AS AMENDED - MAY, 1973

AREAS of ENDANGERED VEGETATION

- A** *Plagiobothrys Glaber*
- B** *Cirsium Campylon*
- C** *Ceanothus Ferrissae*



CONSERVATION ELEMENT

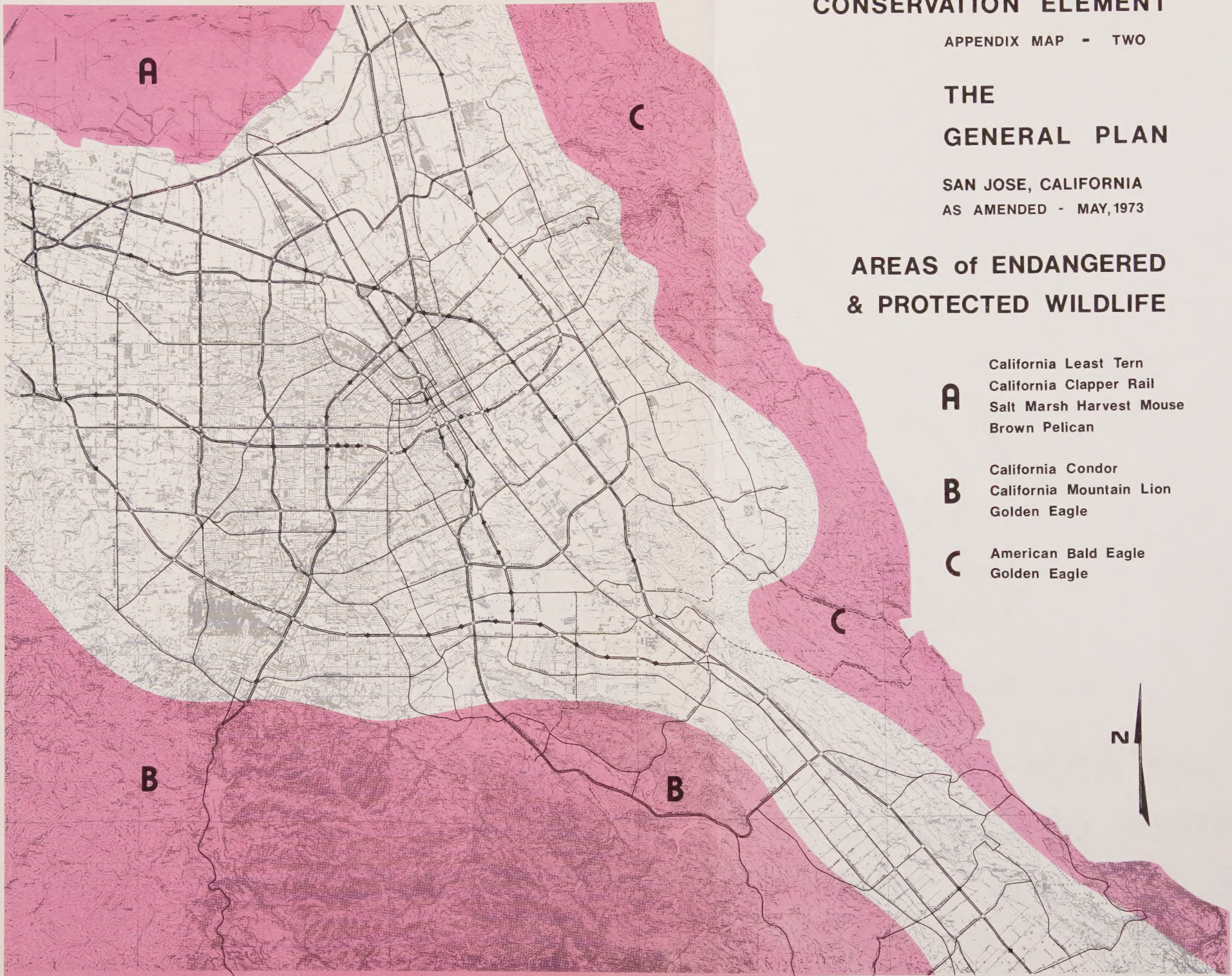
APPENDIX MAP - TWO

THE GENERAL PLAN

SAN JOSE, CALIFORNIA
AS AMENDED - MAY, 1973

AREAS of ENDANGERED & PROTECTED WILDLIFE

- A** California Least Tern
California Clapper Rail
Salt Marsh Harvest Mouse
Brown Pelican
- B** California Condor
California Mountain Lion
Golden Eagle
- C** American Bald Eagle
Golden Eagle



CONSERVATION ELEMENT

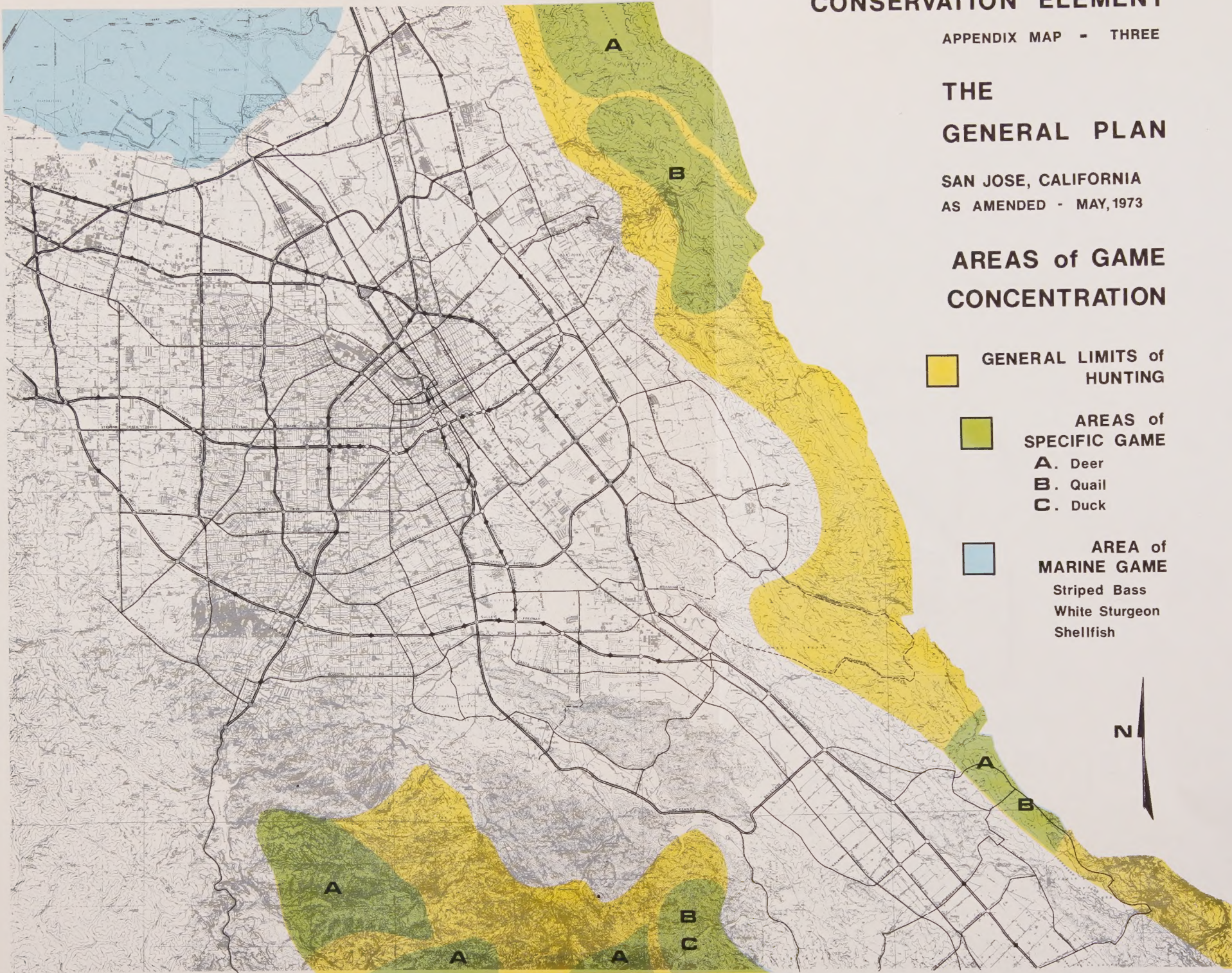
APPENDIX MAP - THREE

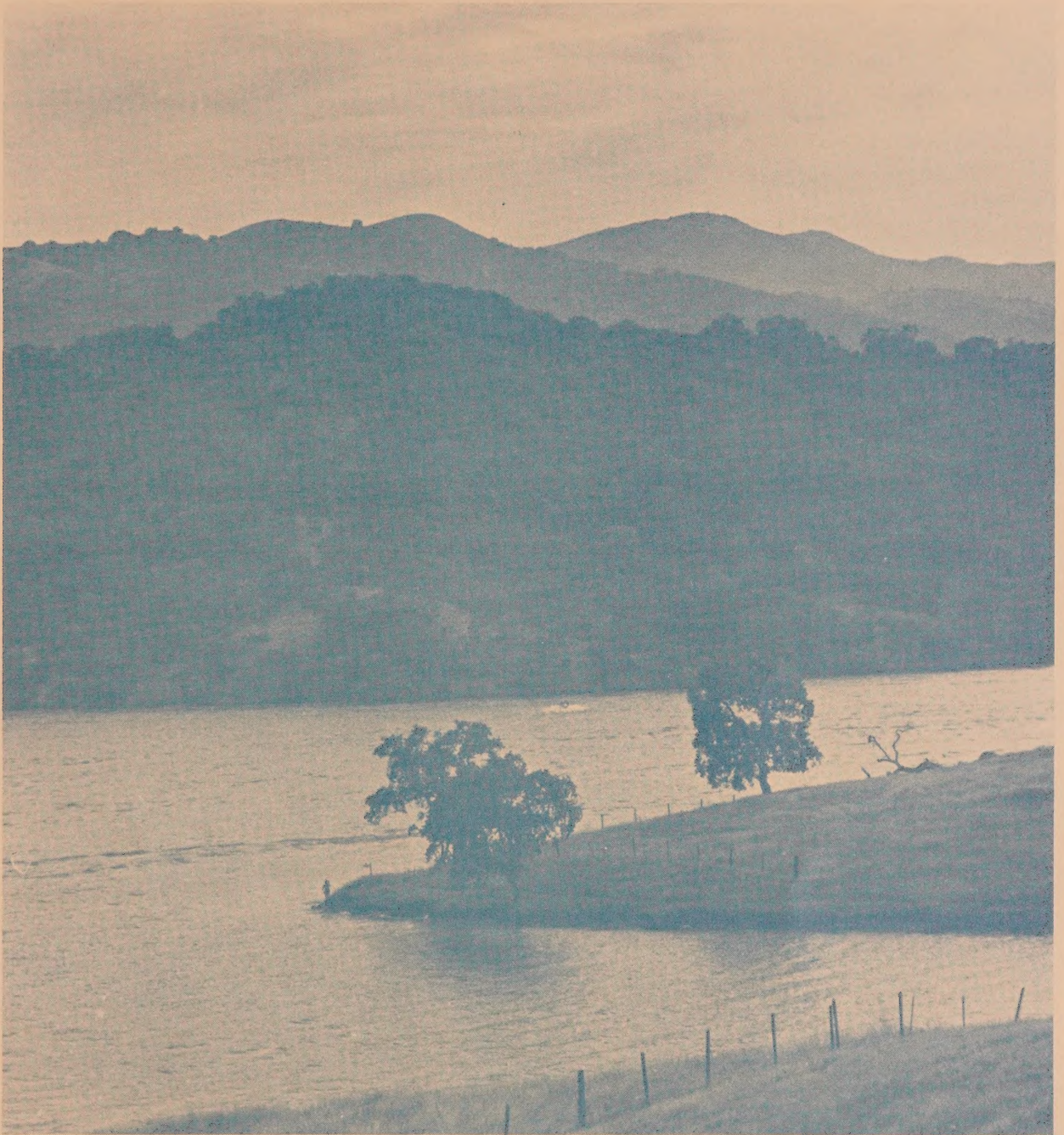
THE GENERAL PLAN

SAN JOSE, CALIFORNIA
AS AMENDED - MAY, 1973

AREAS of GAME CONCENTRATION

-  GENERAL LIMITS of HUNTING
-  AREAS of SPECIFIC GAME
- A.** Deer
B. Quail
C. Duck
-  AREA of MARINE GAME
- Striped Bass
White Sturgeon
Shellfish





Calero Reservoir

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